```
Minimum
Maximum
                                                                                                                                                                                                                                                                                                                                                                                                        Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Post-processing:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Searched
                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    protein -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A_Geneseq_36:*

1: /SIDS1/gcgda'
2: /SIDS1/gcgda'
3: /SIDS1/gcgd'
4: /SIDS1/gcgd'
4: /SIDS1/gcg'
5: /SIDS1/gc'
5: /SIDS1/gc'
6: /SIDS1/gc'
6: /SIDS1/gc'
7: /SIDS1/gc'
8: /SIDS1/gc'
9: /SIDS1/gc'
10: /SIDS1/gc'
11: /SIDS1
13: /SIDS1
14: /SIC
15: /SIC
16: /SIC
19: /SIC
10: /S
     5
6
7
8
9
10
11
11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB
Bd
                                                                                                                                                                                                                                                                                                                                                                             Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     length:
                                                                                                                                                                                                                                                                                                                                                                       Match
                                                                                                                                                                                                                                                                                                                       100.0
                                                                                                                                                                                                                                                                                                                                                                                                        Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
28.3
28.3
28.3
28.3
28.3
21.3
21.3
21.3
21.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-331-631A-25_COPY_31_85
315
1 ENPKHNKCLQSCNSERDSYR.....
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | SIDSI-gcgdata/geneseq/geneseqp/AA1980.DAT:*
| SIDSI-gcgdata/geneseq/geneseqp/AA1981.DAT:*
| SIDSI-gcgdata/geneseq/geneseqp/AA1981.DAT:*
| SIDSI-gcgdata/geneseq/geneseqp/AA1983.DAT:*
| SIDSI-gcgdata/geneseq/geneseqp/AA1984.DAT:*
| SIDSI-gcgdata/geneseq-geneseqp/AA1984.DAT:*
| SIDSI-gcgdata/geneseq-geneseqp/AA1985.DAT:*
| SIDSI-gcgdata/geneseq-geneseqp/AA1986.DAT:*
| SIDSI-gcgdata/geneseq-geneseqp/AA1988.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    268485 seqs, 34193795 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            March
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      :/SIDSI/gcgdata/genescq/genescqp/AA1990.DAT:*
/SIDSI/gcgdata/genescq/genescqp/AA1990.DAT:*
/SIDSI/gcgdata/genescq/genescqp/AA1991.DAT:*
/SIDSI/gcgdata/genescq/genescqp/AA1991.DAT:*
/SIDSI/gcgdata/genescq/genescqp/AA1993.DAT:*
/SIDSI/gcgdata/genescq/genescqp/AA1993.DAT:*
/SIDSI/gcgdata/genescq/genescqp/AA1994.DAT:*
/SIDSI/gcgdata/genescq/genescqp/AA1996.DAT:*
/SIDSI/gcgdata/genescq/genescqp/AA1997.DAT:*
/SIDSI/gcgdata/genescq/genescqp/AA1999.DAT:*
/SIDSI/gcgdata/genescq/genescqp/AA1999.DAT:*
/SIDSI/gcgdata/genescq/genescqp/AA1999.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ENPKHNKCLQSCNSERDSYR......
                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1,
605
605
614
614
626
626
626
626
162
181
181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2001, 16:09:35; Search time 37.5 Seconds (without alignments) 50.151 Million cell up
                                                                                                                                                                                                                                                                                                                                                                             В
  19
10
18
19
19
20
20
20
20
20
20
                                                                                                                                                                                                                                                                                                                                                                             IJ
                                                                                                                                         W62834
W22150
Y15244
Y25657
                                                                                                                                                                                                                                                                                      W62838
Y40999
                                                        Y30426
Y30436
R91711
                          Y30409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EECEEGEIPRPRPRPQHPER 55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              268485
                 Glycine max antimi Soybean beta congl Peanut allergen Ar Arachis hypogaea a Peanut allergen Ar Peanut allergen, A Peanut allergen, A Peanut allergen, I Mature nematode ex Mature nematode ex AcaNAP45. Ancylos Nematode extracted
                                                                                                                                                                                                                                                                                                                                                                       Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cell updates/sec
```

4 20.3 162 20 Y30437	Mature nematode ex
.3 181 17 R91712	47. Ancylo
4 20.3 181 20 Y30410	θX
2 19.7 115 20 Y59848	Human normal uteru
2 19.7 195 20 Y27572	
2 19.7 255 18 W23815	Arabidopsis floral
2 19.7 255 19 W69324	thali
2 19.7 255 19 W43113	
2 19.7 255 19 W39135	flora
2 19.7 255 19 W43330	Arabidopsis floral
2 19.7 255 21 Y67554	
2 19.7 255 21 Y78884	
2 19.7 451 21 Y99382	man PRO155
2 19.7 462 18 W09876	Arabidopsis violax
1 19.4 117 20 Y29116	
60 19.0 1462 20 Y01519	æ
8.5 18.6 406 20 Y49152	Amino acid sequenc
5 18.6 419 20 Y49243	
8.5 18.6 419 20 Y32182	
8 18.4 478 18 W09875	\circ
0 10 4 019 13 X4/001	Human calcium chan
0 10.4 /40 Z1 18100Z	o cc
8 18.4 2161 16 R71001	Human neuronal cal
8 18.4 2161 16 R71002	neuronal
8 18.4 2161 19 W63137	calcium c
58 18.4 2161 19 W63149	Human calcium chan
.5 18.3 525 19 W62831	Theobroma cacao an
5 18.3 566 13 R20181	encoded
.5 18.3 625 19 W62830	a integri
/ 18.1 84 20 Y30432	Mature nematode ex
57 18.1 91 20 Y30393 NO	Acanarcz. Ancylos Nematode extracted
ALIGNMENTS	
1	
) 062838 standard; Protein; 605 AA.	
162838;	
CT 1000 (IIIOC GUCT)	
ilycine max antimicrobial protein.	

```
The sequence is that of an antimicrobial protein which can be used to control microbial infestations in plants and mammalian
                          Claim 1; Page 63-65; 96pp; English
                                                                                                                                                                 02-JUL-1998.
                                                                                                                                                                                                    Glycine max
                                                                                                                                                                                                                      antimicrobial protein;
                                              useful for
                                                                         WPI; 1998-377279/32.
                                                                                           Bower
                                                                                                           (RETR-) COOP RES CENT TROPICAL PLANT PATHOLOGY
                                                                                                                             20-DEC-1996;
                                                                                                                                               22-DEC-1997;
                                                                                                                                                                                  W09827805-A1
                                            anti-microbial protein from e.g. Macadamia l for controlling microbial infestations of
                                                                                           NI,
                                                                                          Goulter KC,
                                                                                                                             96AU-0004275.
                                                                                                                                               97WO-AU00874
                                                                                                                                                                                                                      infestation; control
                                                                                         Green JL, Manners JM,
                                                                                         Marcus
                                            integrifolia -
plants or mammals
                                                                                         JP;
```

nematode

```
В
                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Y40999
ID Y
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOXC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT
                                              Best Loc
Matches
                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                          animal from allergic reaction, partitionary also be used to which is less reactive with IgE. The invention may also be used to ensure that the allergen is not introduced into genetically modified food. The present sequence represents a soybean beta-conglycinin protein
                                                                                                       Sequence
                                                                                                                                                                     epitopes. The invention also provides an isolated recombinant peanut allergen designated Ara h 3 and a nucleotide molecule encoding the peanut allergen Ara h 3. Molecules of the invention are used to protect a host animal from allergic reaction, particularly using a modified allergen
                                                                                                                                                                                                                  The invention provides a tertiary structure for the peanut allergen ara H \bf 1. The Ara H \bf 1 allergen is found to contain 23 linear IgE-binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         animals
                                                                                                                                                                                                                                                      Disclosure; Fig 33A-B; 193pp; English.
                                                                                                                                                                                                                                                                            Tertiary structure of peanut allergen Ara animal from allergic reaction -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Glycine max
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Peanut; allergen; Ara H 1; IgE; immunoglobulin E; epitope; Ara h 3; allergic reaction; soybean; beta-conglycinin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                               WPI; 1999-551218/46.
                                                                                                                                                                                                                                                                                                                                                Burks W,
                                                                                                                                                                                                                                                                                                                                                                                           12-MAR-1998;
11-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO9945961-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Soybean beta-conglycinin protein sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           06-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Y40999
                                                                                                                                                                                                                                                                                                                                                                    (UYAR-) UNIV ARKANSAS
                                                                                                                                                                                                                                                                                                                                                                                                                            12-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  16-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Y40999 standard;
                                             Local Similarity 94.5
nes 52; Conservative
   31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                31
2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            55;
                                                                                                                                                                                                                                                                                                                                    Ή,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                Helm RM,
                                                                                                       605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  605
                                                                                                                                                                                                                                                                                                                                    Compadre CM, Huang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AA
                                                                                                                                                                                                                                                                                                                                                                                           98US-0077763
99US-0077763
                                                                                                                                                                                                                                                                                                                                                                                                                            99WO-US05494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      protein; 605
                                                                                                                                                                                                                                                                                                                                                Cockrell G,
                                                       96.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%;
                                           Score 303; DB 20;
Pred. No. 4.4e-25;
3; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 315; DB 19;
Pred. No. 2.3e-26;
Mismatches 0;
                                                                                                                                                                                                                                                                                                                                    SK,
                                                                                                                                                                                                                                                                                                                                   Bannon GA,
SK, Maleki
                                                                                                                                                                                                                                                                                      h 1 for protection of
                                                                                                                                                                                                                                                                                                                                   Stanley JS, S
SJ, Kopper RA;
                                                                 Length 605;
                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 605;
                                                                                                                                                                                                                                                                                                                                               Shin DS;
                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0,
                                             Gaps
                                                                                                                                                                                                                                                                                        ದಿ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                        host
                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
```

```
Query Match
Best Local Similarity
Whiches 15; Conservi
                       Qy
                                                                                                                   RESULT
W22149
   밁
                                                                                                                                    CC Its sequence was deduced from cDNA clone P17 (T76612), isolated CC from peanut seed cDNA using a primer (see T76616) based on an CC isolated Ara hI peptide (see W24206). The sequence shows CC significant homology with the vicilin family of seed storage CC proteins of other legumes. The allergen is recognised by serum CC IgE from a large proportion of individuals with peanut CC hypersensitivity. Ara hI and Ara hII (see W24164) can be used to CC raise monoclonal antibodies which are used in a specific two-site CC MAB ELISA for the detection of Ara hI or Ara hII (claimed). IgE-CC binding Ara hI antigen epitopes (see W24165-87) may be used in CC vaccines to protect against allergic reactions to peanut allergens, CC e.g. anaphylactic shock.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Peanut; seed storage protein; allergen; allergy; hypersensitivity; vaccine; anaphylactic shock; immunotherapy; therapy; monoclonal antibody; ELISA; analysis; Ara hI.
                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                         Claim
                                                                                                                                                                                                                                                                                                                                               Peanut allergens Ara hI and Ara hII - used for vaccination and in two-site monoclonal antibody based ELISA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          04-MAR-1996;
29-DEC-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               W22149 standard; Protein; 614 AA
                                                                                                                                                                                                                                                                                                                                                                                                                           Bannon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               23-SEP-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Arachis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Peanut allergen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             29-DEC-1997 (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         W22149
                                                                                                                                                                                                                                                                                                                                                                                                                                                  (UYAR-) UNIV ARKANSAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10-JUL-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO9724139-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Peptide
   ω
                 1 ENPKHNKCLQSCNSERDSYRNQACHARCNLLKVE 34
                                                                                                                                                                                                                                                                                                                                                                                                  1997-363453/33.
enpcagrclgscggepddlkgkacesrctkleyd 66
                                                                                                                                                                                                                                                                                                                                                                                                                           GA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            hypogaea strain Florunner.
                                                                                                                                                                                                                                                                                                                      Page 169; 354pp; English.
                                                                                                                 614 AA;
                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                           Burks AW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          96US-0610424
95US-0009455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               96WO-US15222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /label= Mat_protein 521..523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /label= Sig_peptide
23..614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             entry)
                                                              28.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "N-glycosylation site"
                                                                                                                                                                                                                                                                                                                                                                                                                         Cockrell G,
                                                              Score 89;
Pred. No.
                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                           Helm RM,
                                                              DB 18;
0.049;
                                                                                                                                                                                                                                                                                                                                                                                                                           Stanley
                                                                           Length 614;
                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                           JS;
                                                  0
                                                  Gaps
```

RESULT W62834

0

RM,

Stanley JS;

for vaccination and

Ξ

```
RESULT
W22150
                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
Matches 15; Conserv
                                                                                                                                         Peanut; seed storage protein; allergen; allergy; hypersensitivity; vaccine; anaphylactic shock; immunotherapy; therapy; monoclonal antibody; ELISA; analysis; Ara hl.
                                                                                                                                                                                                                                                          W22150 standard; Protein; 626 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                               The sequence is that of an antimicrobial protein which can be used to control microbial infestations in plants and man
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 1998-377279/32.
            W09724139-A1
                                             Modified-site
                                                                                                    Key
                                                                                                                       Arachis hypogaea strain Florunner.
                                                                                                                                                                                        Peanut allergen Ara hI.
                                                                                                                                                                                                            29-DEC-1997 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 1; Page 55-57; 96pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Novel anti-microbial protein from e.g. Macadamia integrifolia useful for controlling microbial infestations of plants or man
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Arachis hypogaea
                                                                                       Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (RETR-) COOP RES CENT TROPICAL PLANT PATHOLOGY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               22-DEC-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     02-JUL-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           W09827805-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     antimicrobial protein; infestation; control
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Arachis hypogaea antimicrobial protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                27-OCT-1998 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             W62834 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20-DEC-1996;
                                                                                                                                                                                                                                                                                                                 \omega_{\omega}
                                                                                                                                                                                                                                                                                                                                      1 ENPKHNKCLQSCNSERDSYRNQACHARCNLLKVE 34
                                                                                                                                                                                                                                                                                G
                                                                                                                                                                                                                                                                                                       ||| :||||| | | : :|| ...
|enpcagrclqscqqepddlkqkacesrctkleyd 66
                                                                                                                                                                                                                                                                                                                                                                                                                  614 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Goulter KC,
                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          96AU-0004275.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               97WO-AU00874
                                           /label= Sig_peptide
23..626
                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Peptide;
                                                                                                                                                                                                                                                                                                                                                                      28.3%;
                                "N-glycosylation site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Green JL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             614
                                                                                                                                                                                                                                                                                                                                                            6;
                                                                                                                                                                                                                                                                                                                                                                      Score 89; DB 19
Pred. No. 0.049;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A
                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Manners JM,
                                                                                                                                                                                                                                                                                                                                                                                DB 19;
                                                                                                                                                                                                                                                                                                                                                                                Length 614;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Marcus JP;
                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                  mammalian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        mammals
                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                           0,
                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT
Y15244
                                                                                                                                                                                                                                                                                                                                      Ъ
                                                                                                                                                                                                                                                                                                                                                       Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                      This polypeptide comprises major peanut allergen Ara hi (W22149).

Its sequence was deduced from cDNA clone P41b (T76613), isolated from peanut seed cDNA using a primer (see T76616) based on an isolated Ara hi peptide (see W24206). The sequence shows significant homology with the vicilin family of seed storage proteins of other legumes. The allergen is recognised by serum IgE from a large proportion of individuals with peanut hypersensitivity. Ara hi and Ara hii (see W24164) can be used to raise monoclonal antibodies which are used in a specific two-site Maining Ara hi antigen epitopes (see W2416587) may be used in vaccines to protect against allergic reactions to peanut allergens, e.g. anaphylactic shock.
                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local S
Matches 15
                   27-AUG-1998;
31-JAN-1998;
13-FEB-1998;
13-FEB-1998;
13-FEB-1998;
                                                                                                                                                                          allergy; immune response; transgenic;
immunoglobulin E; Ig E; binding site;
                                                                                      29-JAN-1999;
                                                                                                           05-AUG-1999.
                                                                                                                                 W09938978-A1
                                                                                                                                                      Arachis hypogea
                                                                                                                                                                                                            Peanut allergen, Ara h 1, amino acid sequence
                                                                                                                                                                                                                                  09-NOV-1999 (first entry)
                                                                                                                                                                                                                                                          Y15244;
                                                                                                                                                                                                                                                                            Y15244 standard; Protein; 626 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1997-363453/33.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    04-MAR-1996;
29-DEC-1995;
(SOSI/) SOSIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        two-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Peanut allergens Ara hI and Ara hII - used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bannon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (UYAR-) UNIV ARKANSAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10-JUL-1997.
                                                                                                                                                                                                                                                                                                                                     35
                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
nes 15; Conserv
                                                                                                                                                                                                                                                                                                                                                        1 ENPKHNKCLQSCNSERDSYRNQACHARCNLLKVE 34
                                                                                                                                                                                                                                                                                                    φ
                                                                                                                                                                                                                                                                                                                                    enpcagrclgscggepddlkgkacesrctkleyd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        monoclonal antibody based ELISA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Page 172;
                                                                                                                                                                                                                                                                                                                                                                                                                                      626 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Burks AW,
                                                                                                                                                                                                                                                                                                                                                                                Conservative
                   98US-0141220.
98US-0073283.
98US-0074590.
98US-0074624.
98US-0074633.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    96US-0610424
95US-0009455
                                                                                      99WO-US02031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      96WO-US15222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                354pp; English.
                                                                                                                                                                                                                                                                                                                                                                                          28.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Cockrell G,
                                                                                                                                                                                                                                                                                                                                                                                6,
                                                                                                                                                                                                                                                                                                                                                                                         Score 89; DB 1
Pred. No. 0.05;
                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Helm
                                                                                                                                                                           allergen;
peanut.
```

89

epitope;

18;

Length 626

13;

Indels

0:

Gaps

0

ρy

```
RESULT
Y25657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                            Major histocompatibility complex; class II; desensitising; human; allergen; grass; tree; weed; pollen; fungi; mould; food; insect; sting; chiromidae; spider; mite; housefly; fruit fly; sheep blow fly; honeybee; screw worm fly; grain weevil; silkworm; bee moth; larvae; mealworm; cat; cockroach; beetle; dog; horse; cow; pig; sheep; rabbit; rat; guinea pig;
This invention
                         Example 6; Page 70-71; 117pp; English
                                                                                 WPI; 1999-458255/38
                                                                                                                                                                 21-SEP-1998;
09-JAN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            By modifying the IgE binding sites the ability of the allergen to provoke an immune response is downregulated. The epitopes of the IgE binding sites can therefore be modified in genetically engineered plants and animals to elicit less of an allergic response.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This is the amino acid sequence of the Ara h 1 protein from Arachis hypogea. The Ara h 1 protein has 23 IgE (Immunoglobulin E) binding epitopes, four of which are immunodominant (Y15247, Y15249, Y15250)
                                                    Desensitizing patients to polypeptide allergens
                                                                                                                                                                                                          11-JAN-1999;
                                                                                                                                                                                                                                                                W09934826-A1
                                                                                                                                                                                                                                                                                      Arachis hypogea
                                                                                                                                                                                                                                                                                                                                                                                                                                        30-SEP-1999 (first entry)
                                                                                                                                       (IMCO-) IMPERIAL COLLEGE INNOVATIONS LTD
                                                                                                                                                                                                                                     15-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                              Peanut allergen 1168391 Ara h I protein fragment.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Y25657 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure; Page 35-37; 46pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               allergies
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Modified allergen with reduced IgE binding, useful for treating e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (UYAR-) UNIV ARKANSAS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              35 enpcaqrclqscqqepddlkqkacesrctkleyd 68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 ENPKHNKCLQSCNSERDSYRNQACHARCNLLKVE 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1999-479189/40
                                                                                                                                                                                                                                                                                                                   gerbil;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GA, Burks AW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
describes a novel method of desensitizing a patient
                                                                                                                                                                 98GB-0020474.
98GB-0000445.
                                                                                                                                                                                                          99WO-GB00080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein; 626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MT SINAI SCHOOL MEDICINE
                                                                                                                                                                                                                                                                                                                   treatment; prevention; hypersensitivity; peanut
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sampson HA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 89; DB 2
Pred. No. 0.05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sosin H;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
```

```
RESULT
Y30426
ID Y3
80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ъ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cc polypeptide allergen and comprises administering to the patient a peptide consisted by the patient can be demonstrated for the peptide and the possessed by the patient can be demonstrated for the peptide and the peptide is able to induce a late phase response in an individual who composesses the MHC Class II molecule. The methods can be used for composesses the MHC Class II molecule. The methods can be used for composesses the MHC Class II molecule. The methods can be used for composes the composes of the chiral strain patients to allergens present in e.g. grass, tree and weed clincluding ragweed) pollens, fungi and moulds, foods, stinging insects, the chiral strain consisting midges), spiders and mites, housefly, fruit fly, sheep blow fly, screw worm fly, grain weevil, sikworm, homeybee, constiting midge larvae, beemoth larvae, meahworm, cockroach, larvae of renibrio molitor beetle, mammals such as cat, dog, horse, cow, pig, sheep, rabbit, rat, guinea pig, mice or geabil. They can also be used to produce immunological vaccines which may be used to prevent and/or treat conditions involving hypersensitivity to allergens. This sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                    Bergum PW, Ga
Lauwereys MJ,
Vlasuk GP;
                                                                                                                                                                                                                                                                                                         19-APR-1996;
18-OCT-1994;
05-JUN-1995;
05-JUN-1995;
                                                       Disclosure; Columns 137-138; 197pp; English.
                                                                                        Screening an isolated protein for Nematode-extracted Anticoagulant Protein domains
                                                                                                                                      WPI; 1999-539569/45
                                                                                                                                                                                                                                                                            05-JUN-1995
05-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                     19-APR-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                   21-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ancylostoma caninum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          serine protease inhibitor; NAP domain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mature nematode extracted anticoagulant protein AcaNAP45d2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15-NOV-1999 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Y30426;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Y30426 standard; Protein;
                                                                                                                                                                                                                                (CORV-) CORVAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Nematode extracted anticoagulant protein; NAP; anticoagulant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 ENPKHNKCLQSCNSERDSYRNQACHARCNLLKVE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             œ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      enpcaqrclqscqqepddlkqkacesrctkleyd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  l Similarity
15; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              626 AA;
                                                                                                                                                                                    Gansemans YGJ,
J, Messens JHL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                              95US-0486397.
95US-0486399.
95WO-US13231.
                                                                                                                                                                                                                                                                                                         96US-0634641.
94US-0326110.
95US-0461965.
95US-0465380.
                                                                                                                                                                                                                                  INT INC
                                                                                                                                                                                                                                                                                                                                                                                     96US-0634641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               78
                                                                                                                                                                                  Jespers LS,
Moyle M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 89;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AΑ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           factor VIIa/TF
                                                                                                                                                                                    Stanssens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 20;
0.05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    34
                                                                                                                                                                                                    Laroche
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
```

The present sequence represents a nematode extracted anticoagulant protein (NAP). The protein has activity as an anticoagulant and/or protease inhibitor. The protein contains at least one NAP domain $\mathbf w$

domain which and/or serine

```
RESULT
Y30436
  G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                Bergum PW, Ga
Lauwereys MJ,
Vlasuk GP;
                                                                                                                                                                                     19-APR-1996;
18-OCT-1994;
05-JUN-1995;
05-JUN-1995;
05-JUN-1995;
17-OCT-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  isolated protein in an ex vivo prothrombin time (PT) assay and an ex vivo activated partial thromboplastin time (aPTT) assay; calculating prolongation of clotting effected by the isolated protein in each of the PT and aPTT assay, with respect to a baseline clotting value for each assay, where prolongation of clotting is calculated as fold elevation of clotting time relative to a baseline clotting value, where a doubling of clotting time is deemed a two-fold elevation; and calculating a PT to aPTT prolongation ratio, where a ratio at least one is indicative of factor VIIa/TF inhibitory activity. The method is useful for determining if a protein has factor VIIa/TF inhibitory
Disclosure; Fig 18; 197pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Y30436 standard;
                                         Screening an isolated protein for Nematode-extracted Anticoagulant
                                                                                                                                                                                                                                                                                                      19-APR-1996;
                                                                                                                                                                                                                                                                                                                                                               US5955294-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mature nematode extracted anticoagulant protein AcaNAP45.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15-NOV-1999 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           has selective inhibitory activity for factor VIIa/TF. The specification describes a method for screening an isolated protein at least one domain for factor VIIa/TF selective inhibitory activity. The method comprises
                                                                       WPI; 1999-539569/45
                                                                                                                                                                                                                                                                                                                                  21-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                          Ancylostoma
                                                                                                                                                                                                                                                                                                                                                                                                                   serine protease inhibitor; NAP domain; factor VIIa/TF
                                                                                                                                                                                                                                                                                                                                                                                                                               Nematode extracted anticoagulant protein; NAP; anticoagulant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                             Protein domains
                                                                                                                                                            (CORV-) CORVAS INT INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                determining the time to clotting effected by a concentration of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         75 etkh 78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    49 RPQH 52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5 HNKCLQSCNSERDSYRNQACHAR-----CN--LLK-----VEKEECEEGEIPRPRP 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ykqcerkcnkelsekdeeaclsractgracvcndglyrddfgncvekdecndmeiitfpp 74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             78 AA;
                                                                                                                                                                                                                                                                                                                                                                                          caninum.
                                                                                                                              Gansemans YGJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                  96US-0634641.
94US-0326110.
95US-0461965.
95US-0465380.
95US-0486397.
95US-0486399.
                                                                                                                 Messens JHL,
                                                                                                                                                                                       95WO-US13231
                                                                                                                                                                                                                                                                                                      96US-0634641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Protein; 162 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21.3%;
29.7%;
                                                                                                                             Jespers LS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 67; DB:
Pred. No. 1.4;
                                                                                                               Moyle M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                 Stanssens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 20;
                                                                                                                              Laroche YR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ω
```

```
망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DЪ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 10
R91711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 19; Conserv
                                                                                                                                               05-JUN-1995;
18-OCT-1994;
05-JUN-1995;
05-JUN-1995;
05-JUN-1995;
            WPI; 1996-222007/22
N-PSDB; T12957.
                                                                                                                                                                                                                                                                                                                                                               nematode-extracted anticoagulant protein; serine protease; nematode; thrombosis; parasitic worm.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    isolated protein in an ex vivo prothrombin time (PT) assay and an ex vivo activated partial thromboplastin time (aPTT) assay; calculating prolongation of clotting effected by the isolated protein in each of the PT and aPTT assay, with respect to a baseline clotting value for each assay, where prolongation of clotting is calculated as fold elevation of clotting time relative to a baseline clotting value, where
                                                         Vlasuk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a doubling of clotting time is deemed a two-fold elevation; and calculating a PT to aPTT prolongation ratio, where a ratio at least one is indicative of factor VIIa/TF inhibitory activity. The method useful for determining if a protein has factor VIIa/TF inhibitory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present sequence represents a nematode extracted anticoagulant protein (NAP). The protein has activity as an anticoagulant and/or sering protease inhibitor. The protein contains at least one NAP domain which has selective inhibitory activity for factor VIIa/TF. The specification describes a method for screening an isolated protein at least one domain for factor VIIa/TF selective inhibitory activity. The method comprises
                                                                                                                                                                                                                                           17-OCT-1995;
                                                                                                                                                                                                                                                                                                      WO9612021-A2
                                                                                                                                                                                                                                                                                                                                    Ancylostoma caninum.
                                                                                                                                                                                                                                                                                                                                                                                           ACANAP; HponaP; NamnaP; AcenaP; AduNAP; anticoagulant;
                                                                                                                                                                                                                                                                                                                                                                                                                              AcaNAP45
                                                                                                                                                                                                                                                                                                                                                                                                                                                           17-NOV-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         R91711;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      R91711 standard; Protein; 181 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               activity.
                                                                       Jauwereys MJ,
                                                                                                                    (CORV-) CORVAS
                                                                                                                                                                                                                                                                         25-APR-1996.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   determining the time to clotting effected by a concentration of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               159 etkh 162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             49 RPQH 52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99 ykgcerkcnkelsekdeeaclsractgracvcndglyrddfgncvekdecndmeiitfpp 158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5 HNKCLQSCNSERDSYRNQACHAR------CN--LLK-----VEKEECEEGEIPRPRP 48
                                                         GP;
                                                                                     PW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   162
                                                                       Gansemans YGJ,
J, Messensjhl,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                               95US-0486399.
94US-0326110.
95US-0461965.
95US-0465380.
95US-0486397.
                                                                                                                     INT INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AA;
                                                                                                                                                                                                                                           95WO-US13231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21.3%;
29.7%;
                                                                     Jespers LS, Laroche
Moyle M, Stanssens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 67; I
Pred. No. 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                     Laroche YR;
Stanssens PEH;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB
2.9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20; Length 162;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The method is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            and/or serine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     w
••
```

```
RESULT
Y30409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QУ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ъ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Proteins with anticoagulant and/or serine protease inhibitory activity, isolated from nematodes, are useful to inhibit blood coagulation. The proteins can be added to blood collection tubes defining the collection of mammalian plasma. They are also useful to prevent or inhibit thrombosis, and may be given alone or in combination with other therapeutic or in vivo diagnostic agents. The proteins can serve as immunogens to raise antibodies for use in the diagnosis and identification of NAP concn. levels in biological fluids, e.g. to detect mammalian infection with a parasitic worm. They can also be used as immunogens in prophylactic and therapeutic vaccines against parasitic worm infection. The proteins may double the clotting time of human plasma in prothrombin time assays when present at 10-50 nWol, and double the clotting time of human plasma in activated partial thrombin time assays when present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                      19-APR-1996;
18-OCT-1994;
05-JUN-1995;
05-JUN-1995;
05-JUN-1995;
05-JUN-1995;
                                                                                                                                                                                                           US5955294 - A
                                                                                                                                                                                                                                            Ancylostoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       americanus or Heligomosmoides polygyrus.

The proteins pref. have 2 NAP domains and specifically inhibit the catalytic activity of the factor VIIa/TF complex in the presence of factor xa or a catalytically inhactive factor xa deriv., do not specifically inhibit the activation of factor VIIa in the absence of TF and do not specifically inhibit thrombians.
                                                                                                                                         19-APR-1996;
                                                                                                                                                                                                                                                                                                                         Nematode extracted anticoagulant protein AcaNAP44.
                                                                                                                                                                                                                                                                           Nematode extracted anticoagulant protein; NAP; anticoagulant; serine protease inhibitor; NAP domain; factor VIIa/TF.
                                                                                                                                                                                                                                                                                                                                                             15-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                           Y30409 standard; Protein; 181 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Proteins with anticoagulant and/or serine protease inhibitory activity - isolated from nematodes and useful to inhibit blood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The anticoagulant proteins are pref. derived from Ancylostoma caninum, A. ceylanicum, A. duodenale, Necator
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               coagulation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             at 10-100 nMol.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              178 etkh 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                              11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             49 RPQH 52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5 HNKCLQSCNSERDSYRNQACHAR------CN--LLK-----VEKEECEEGEIPRPRP 48
: :| :| : || :| || || :| || :| || ||
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ykqcerkcnkelsekdeeaclsractgracvcndglyrddfgncvekdecndmeiitfpp 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              221; Fig 13F;
١.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                            caninum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                          '(first entry)
                      96US-0634641.
94US-0326110.
95US-0461965.
95US-0465380.
95US-0486397.
95US-0486399.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AA;
                                                                                                                                         96US-0634641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            243pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 67;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3.3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 181;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ω
```

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                            δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Вb
                                                                                                                                                                                                                                                                                                                               RESULT 12
Y30427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local S
Matches 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    isolated protein in an ex vivo prothrombin time (PT) assay and an ex vivo activated partial thromboplastin time (aPT) assay; calculating prolongation of clotting effected by the isolated protein in each of the PT and aPTT assay, with respect to a baseline clotting value for each assay, where prolongation of clotting is calculated as fold elevation of clotting time relative to a baseline clotting value, where a doubling of clotting time is deemed a two-fold elevation; and calculating a PT to aPTT prolongation ratio, where a ratio at least one is indicative of factor VIIA/TF inhibitory activity. The method is useful for determining if a protein has factor VIIA/TF inhibitory
 19-APR-1996;
                                19-APR-1996;
                                                                                                                             Ancylostoma caninum
                                                                                                                                                            serine protease
                                                                                                                                                                                                           Mature nematode extracted anticoagulant protein AcaNAP47d2
                                                                                                                                                                                                                                                                               Y30427;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  has selective inhibitory activity for factor VIIa/TF. The specification describes a method for screening an isolated protein at least one domain for factor VIIa/TF selective inhibitory activity. The method comprises
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bergum PW, Gansemans Y
Lauwereys MJ, Messens
                                                              21-SEP-1999
                                                                                                                                                            Nematode extracted anticoagulant protein; NAP; anticoagulant; serine protease inhibitor; NAP domain; factor VIIa/TF.
                                                                                                                                                                                                                                               15-NOV-1999
                                                                                                                                                                                                                                                                                                              Y30427 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein (NAP). The protease inhibitor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1999-539569/45.
N-PSDB; Z10457.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      determining the time to clotting effected by a concentration of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Example 12; Fig 13F; 197pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Screening an isolated protein for Nematode-extracted Anticoagulant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Vlasuk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17-OCT-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (CORV-) CORVAS INT INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                             118
                                                                                                                                                                                                                                                                                                                                                                                                178 etkh 181
                                                                                                                                                                                                                                                                                                                                                                                                                            49 RPQH 52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5 HNKCLQSCNSERDSYRNQACHAR-----CN--LLK-----VEKEECEEGEIPRPRP 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ch 21.3%;
l Similarity 29:7%;
19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sequence represents a nematode extracted anticoagulant P). The protein has activity as an anticoagulant and/or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gansemans YGJ,
J, Messens JHL,
                                                                                                                                                                                                                                            (first entry)
                                96US-0634641.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      95WO-US13231.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The protein contains at least one NAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; Score 67; DB 2; Pred. No. 3.3; 9; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Jespers LS,
Moyle M, (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      , Laroche
Stanssens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 20; Length 181;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      domain which
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      and/or serine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                             177
```

ω

```
RESULT 13
Y30437
                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                      δÃ
                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18-OCT-1994;
05-JUN-1995;
05-JUN-1995;
05-JUN-1995;
05-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       elevation of clotting time relative to a baseline clotting value, where a doubling of clotting time is deemed a two-fold elevation; and calculating a PT to aPTT prolongation ratio, where a ratio at least one is indicative of factor VIIa/TF inhibitory activity. The method is useful for determining if a protein has factor VIIa/TF inhibitory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                determining the time to clotting effected by a concentration of the isolated protein in an ex vivo prothrombin time (PT) assay and an ex vivo activated partial thromboplastin time (aPTT) assay; calculating prolongation of clotting effected by the isolated protein in each of the PT and aPTT assay, with respect to a baseline clotting value for each assay, where prolongation of clotting is calculated as fold
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         has selective inhibitory activity for factor VIIa/TF. The specification describes a method for screening an isolated protein at least one domain for factor VIIa/TF selective inhibitory activity. The method comprises
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein (NAP). The protein has activity as an anticoagulant and/or serine protease inhibitor. The protein contains at least one NAP domain which
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Screening an isolated protein for Nematode-extracted Anticoagulant Protein domains
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bergum PW, Ga
Lauwereys MJ,
                             US5955294-A
                                                         Ancylostoma
                                                                                                   Nematode extracted anticoagulant protein; NAP; anticoagulant;
                                                                                                                              Mature nematode extracted anticoagulant protein AcaNAP47
                                                                                                                                                                15-NOV-1999
                                                                                                                                                                                                                           Y30437 standard; Protein; 162 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present sequence represents a nematode extracted anticoagulant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure; Columns 139-140; 197pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 1999-539569/45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (CORV-) CORVAS INT INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17-OCT-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
                                                                                                                                                                                                                                                                                                  75 etkh 78
                                                                                                                                                                                                                                                                                                                                49 RPQH 52
                                                                                                                                                                                                                                                                                                                                                       15\ ykqcerkcseelsekneeaclsractgracvcndglyrddfgncvekdecndmeiitfpp
                                                                                                                                                                                                                                                                                                                                                                          protease
                                                                                                                                                                                                                                                                                                                                                                                                                         18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                78
                                                         caninum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gansemans YGJ,
J, Messens JHL,
                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            94US-0326110.
95US-0461965.
95US-0465380.
95US-0486397.
95US-0486399.
95WO-US13231.
                                                                                     inhibitor;
                                                                                                                                                                                                                                                                                                                                                                                                                                    20.3%;
                                                                                       NAP
                                                                                                                                                                                                                                                                                                                                                                                                                       10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Jespers LS, Laroche YR;
Moyle M, Stanssens PEH;
                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 64;
Pred. No.
                                                                                     domain; factor VIIa/TF
                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                    DB
2.9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   20;
                                                                                                                                                                                                                                                                                                                                                                                                                       20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 78
                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                       16;
                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                      ω
```

```
RESULT
R91712
Q
                                                                                                                                                                                                                                                                                                             Ъ
                                                                                                                                                                                                                                                                                                                                          Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bergum PW, Gan
Lauwereys MJ,
Vlasuk GP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            19-APR-1996;
18-OCT-1994;
05-JUN-1995;
05-JUN-1995;
05-JUN-1995;
05-JUN-1995;
17-OCT-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                determining the time to clotting effected by a concentration of the isolated protein in an ex vivo prothrombin time (PT) assay and an ex vivo activated partial thromboplastin time (PT) assay; and an ex vivo prothogation of clotting effected by the isolated protein in each of the PT and aPT assay, with respect to a baseline clotting value for each assay, where prolongation of clotting is calculated as fold elevation of clotting time relative to a baseline clotting value, where a doubling of clotting time is deemed a two-fold elevation; and calculating a PT to aPTT prolongation ratio, where a ratio at least one is indicative of factor VIIa/TF inhibitory activity. The method is useful for determining if a protein has factor VIIa/TF inhibitory
        ACANAP; HPONAP; NamNAP; ACENAP; AduNAP; anticoagulant; nematode-extracted anticoagulant protein; serine protease; nematode; thrombosis; parasitic worm.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        protein (NAP). The protein has activity as an anticoagulant and/or serine protease inhibitor. The protein contains at least one NAP domain which has selective inhibitory activity for factor VIIA/TF. The specification describes a method for screening an isolated protein at least one domain for factor VIIA/TF selective inhibitory activity. The method comprises
                                                                                                                                                                 R91712 standard; Protein; 181 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure; Fig 19; 197pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Screening an isolated protein for Nematode-extracted Anticoagulant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 1999-539569/45
                                                                                                        17-NOV-1996
                                                                                                                                       R91712;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The present sequence represents a nematode extracted anticoagulant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (CORV-) CORVAS INT INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19-APR-1996;
                                                                                                                                                                                                                                                  159 etkh 162
                                                                                                                                                                                                                                                                                49 RPQH 52
                                                                                                                                                                                                                                                                                                             99 ykqcerkcseelsekneeaclsractgracvcndglyrddfgncvekdecndmeiitfpp 158
                                                                                                                                                                                                   14
                                                                                                                                                                                                                                                                                                                                            5 HNKCLQSCNSERDSYRNQACHAR-----CN--LLK-----VEKEECEEGEIPRPRP 48
                                                                                                                                                                                                                                                                                                                                                                            18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gansemans YGJ,
J, Messens JHL,
                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          95US-0461965.
95US-0465380.
95US-0486397.
95US-0486399.
95WO-US13231.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          96US-0634641
94US-0326110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        96US-0634641
                                                                                                                                                                                                                                                                                                                                                                                         20.3%;
                                                                                                                                                                                                                                                                                                                                                                           10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Jespers LS, Moyle M,
                                                                                                                                                                                                                                                                                                                                                                                           Pred. No. 6
                                                                                                                                                                                                                                                                                                                                                                                                        Score 64;
                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 , Laroche
Stanssens
                                                                                                                                                                                                                                                                                                                                                                                                        DB
                                                                                                                                                                                                                                                                                                                                                                                                        20;
                                                                                                                                                                                                                                                                                                                                                                           20;
                                                                                                                                                                                                                                                                                                                                                                                                        Length 162;
                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                           16;
                                                                                                                                                                                                                                                                                                                                                                         Gaps
```

ω

```
RESULT
Y30410
                                                                                                                             δõ
                                                                                                                                                                B
                                                                                                                                                                                               QУ
                                                                                                                                                                                                                                                                                                                  ID
                                                                                                망
×
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Proteins with anticoagulant and/or serine protease inhibitory cactivity, isolated from nematodes, are useful to inhibit blood collection tubes coagulation. The proteins can be added to blood collection tubes defining the collection of mammalian plasma. They are also useful to prevent or inhibit thrombosis, and may be given alone or in combination with other therapeutic or in vivo diagnostic agents. The proteins can serve as immunogens to raise antibodies for use in the diagnosis and identification of NAP concn. levels in biological fluids, e.g. to detect mammalian infection with a parasitic worm. They can also be used as immunogens in prophylactic and therapeutic vaccines against parasitic worm infection. The proteins may double the clotting time of human plasma in prothymbin time assays when present at 10-50 nMol, and double the clotting time of human plasma in activated partial thrombin time assays when present at 10-100 nMol.
                                                                                                                                                                                                                               Query Match
Best Local Similarity
Matches 18; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18-OCT-1994;
05-JUN-1995;
05-JUN-1995;
05-JUN-1995;
               Y30410 standard;
                                                                                                                                                                                                                                                                                                                                          americanus or Heligomosmoides polygyrus.

The proteins pref. have 2 NAP domains and specifically inhibit the catalytic activity of the factor VIIa/TF complex in the presence of factor Xa or a catalytically inactive factor Xa deriv., do not specifically inhibit the activation of factor VIIa in the absence of TF and do not specifically inhibit prothrombinase.
                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 221; Fig 13G; 243pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                              The anticoagulant proteins are pref. derived from Ancylostoma caninum, A. ceylanicum, A. duodenale,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Proteins with anticoagulant and/or serine protease inhibitory activity - isolated from nematodes and useful to inhibit blood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bergum PW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 05-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17-OCT-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   W09612021-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ancylostoma caninum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (CORV-) CORVAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25-APR-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Lauwereys MJ,
                                                                                                178 etkh 181
                                                                                                                                                            118 ykqcerkcseelsekneeaclsractgracvcndglyrddfgncvekdecndmeiitfpp 177
                                              15
                                                                                                                               49 RPQH 52
                                                                                                                                                                                             5 HNKCLQSCNSERDSYRNQACHAR-----CN--LLK-----VEKEECEEGEIPRPRP 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1996-222007/22.
                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gansemans YGJ,
J, Messensjhl,
                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              95US-0486399.
94US-0326110.
95US-0461965.
95US-0465380.
95US-0486397.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 INT INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  95WO-US13231
            Protein; 181
                                                                                                                                                                                                                                               20.3%;
                                                                                                                                                                                                                                 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Jespers LS, Laroche YR;
Moyle M, Stanssens PEH;
                                                                                                                                                                                                                                               Score 64;
Pred. No.
                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                               6.9;
                                                                                                                                                                                                                                                                                                                                                                                                                                               duodenale, Necator
                                                                                                                                                                                                                                                            DB 17;
                                                                                                                                                                                                                               20;
                                                                                                                                                                                                                                                              Length 181;
                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                               16;
                                                                                                                                                                                                                              Gaps
```

```
Ω
                                                                                                                                                                      В
                                                          Qy
                                                                                                                                                                                                         The present sequence represents a nematode extracted anticoagulant CC proteain (NAP). The protein has activity as an anticoagulant and/or serine protein (NAP). The protein contains at least one NAP domain which corrections in the protein contains at least one NAP domain which has selective inhibitory activity for factor VIIa/TF. The specification contains a method for screening an isolated protein at least one domain for factor VIIa/TF selective inhibitory activity. The method comprises determining the time to clotting effected by a concentration of the isolated protein in an ex vivo prothrombin time (PT) assay and an ex vivo activated partial thromboplastin time (aPTT) assay and an ex vivo prolongation of clotting effected by the isolated protein in each of the PT and aPTT assay, with respect to a baseline clotting value for each assay, where prolongation of clotting time relative to a baseline clotting value, where a doubling of clotting time is deemed a two-fold elevation; and calculating a PT to aPTT prolongation ratio, where a ratio at least one is indicative of factor VIIa/TF inhibitory activity. The method is useful for determining if a protein has factor VIIa/TF inhibitory
                                                                                          Matches
                                                                                                        Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       19-APR-1996;
18-OCT-1994;
05-JUN-1995;
05-JUN-1995;
05-JUN-1995;
17-OCT-1995;
                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Nematode extracted anticoagulant protein; NAP; anticoagulant; serine protease inhibitor; NAP, domain; factor VIIa/TF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 12; Fig 13G; 197pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Protein domains
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Screening an isolated protein for Nematode-extracted Anticoagulant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1999-539569/45.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Vlasuk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bergum PW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US5955294-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19-APR-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Nematode extracted anticoagulant protein AcaNAP45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Y30410;
                              118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Lauwereys MJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (CORV-) CORVAS INT INC
 49
                                                          5 HNKCLQSCNSERDSYRNQACHAR-----CN--LLK-----VEKEECEEGEIPRPRP 48
 RPQH 52
                            ykqcerkcseelsekneeaclsractgracvcndglyrddfgncvekdecndmeiitfpp 177
                                                                                        1 Similarity
18; Conser
                                                                                                                                                                     181 AA;
                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gansemans YGJ,
J, Messens JHL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       96US-0634641.
94US-0326110.
95US-0461965.
95US-0465380.
95US-0486397.
95US-0486399.
95WO-US13231.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 96US-0634641
                                                                                                       20.3%;
                                                                                        10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Jespers LS,
Moyle M,
                                                                                                       Score
Pred.
                                                                                          Mismatches
                                                                                                       No :
                                                                                                          σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Stanssens
                                                                                                                        DB 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Laroche
                                                                                        20;
                                                                                                                     Length 181;
                                                                                        Indels
                                                                                        16;
                                                                                       Gaps
```

В

178 etkh 181

w T

Search completed: March 1, 2001, 16:09:37 Job time: 1329 sec

